

File Code: 1940 Monitoring

Date: 8/8/18

To: Hebgen Lake District Ranger

Subject: Rendezvous Ski Trails Stewardship Project

IMPLEMENTATION REVIEW DATE AND PARTICIPANTS

On September 27, 2017 a post project Implementation Monitoring Review was held to evaluate the Rendezvous Ski Trails Stewardship Project on the Hebgen Lake Ranger District. This project was primarily implemented in summer/fall 2016, with a minor amount of decked logs removed from the project site 2017. Monitoring Review attendees included Jason Brey, Eric Tonn, Randy Scarlett, Johanna Nosal, Colin Crook, Jim Gunning, and Dale White.

OBJECTIVES

The post project Implementation Monitoring Review was held to evaluate the application and effectiveness of project mitigation measures and BMPs. The project was authorized by Decision Memo in March 2014. The purpose of this project was to create and maintain a healthy forest in sections of the cross country ski trail system so that the aesthetic quality of the trails can be maintained even during a mountain pine beetle outbreak. The treatment is also expected to reduce the risk of a crown fire adjacent to town and create a safer environment for fire fighters engaged in direct attack and suppression of wildfire in the area.

APPLIED TREATMENTS

The treatment was to thin stands to 15 -20 feet between crowns, evenly spaced, and to remove less vigorous trees such as those with dwarf mistletoe, insects, or small crown ratios.

EVALUATION PROTOCOL

This review consisted of the following actions.

1. Identification of key project mitigation measures/BMPs stated in the Decision Memo.
2. Field review of the treatment units
3. Team ratings (consensus) for effectiveness of objectives and the mitigation measures observed at the reviewed units, using the Custer Gallatin NF implementation monitoring format
4. Team recommendations for future CGNF projects

BMP implementation and effectiveness was evaluated using a modified form of the Forestry BMP review protocol developed by the Montana DNRC. The application and effectiveness rating system consisted of the following scoring system:

Application	4 points. Operation meets requirements of objective or measure
	3 points. Minor departure from objective or measure, requirements mostly met
	2 points. Major departure from objective or measure, requirements marginally/barely met
	1 point. Gross neglect of objective or measure, requirements not met at all
Effectiveness	4 points. Adequate Protection of resources, effective
	3 points: Minor & temporary impacts on resources, moderately effective
	2 points: Major & temporary or minor & prolonged impacts on resources, slightly effective
	1 point: Major and prolonged impacts on resources, not effective

EVALUATION WORKSHEET

Evaluation Items - BMP's	Appli- cation	Effect- iveness	Comments
1) Road Rehab Timing - To allow for winter trail grooming the road/trail surface will be reshaped, and restored to a useable condition for grooming prior to snow fall each year. Logging activities will be suspended prior to October 27 to allow for smoothing of road/trail surfaces.	3	3	A time extension was granted for accessing units 7, 10, and 12 until November 10 so that the project could be completed in 2016. However, effectiveness was rated a "3" because it was not possible to remove some decked logs until 2017.
2) Haul Routes - To prevent damage to trails, only permitted routes will be used for haulage (the haul route map is given in the project file). The road between the Rendezvous Junction sign board and bottom of the hill will not be used (as shown on haul route map). This road section is critical for operation of the trail system during low-snow conditions.	4	4	
3) Recreation Interface - To reduce conflict with permitted recreation events, the timber sale contract will prohibit logging on weekends. If there are no weekend events, this requirement may be waived. No logging activity will be conducted during the winter grooming season (from Oct. 27 to May 30).	3	4	Application was scored as "3" because hauling was allowed on some weekends (when there was no public event scheduled) and was allowed past Oct 27 on units 7, 10, and 12.
4) Safety Signage - To ensure public safety, information signs will be posted at the trailhead on the edge of town and at the gate on the South Plateau Road # 1700. Also, a temporary "area closure" may be necessary during tree falling, skidding and loading.	4	3	Despite safety signage meeting requirements and an area closure, LEO patrols observed some public use. Effective complete closure is probably impossible in this popular area with multiple access points.
5) Wildlife Snags - Where available, an average of 30 snags per 10 acres will be left. Priority will be given to the largest and most desirable snags. If an insufficient number of snags are present, then large diameter trees for future snags will be left.	4	4	Available snags were left. Large diameter green trees were retained for future snags
6) Visual Impacts - If stumps are created next to the trail, they will be left at least 2 feet tall so they can be identified and removed prior to winter ski season. To reduce visual impacts of tree marking paint on trees in the developed recreation, cut-tree marking (as opposed	4	4	

to leave-tree marking) will be used where practical. Any remaining visible paint may be “blackened out” after harvest.			
7) Burning - To minimize impacts to air quality, a burn plan adhering to the Montana / Idaho Airshed Group Operating Guide (June 2010) will be developed and implemented.	NA	NA	
8) Skid Trail Routing - A systematic skid trail pattern during logging is required. Skid trails will be laid out in a manner that avoids sustained grades > 15%.	4	4	
9) Skidding - Ground-based skidding and mechanical harvesting equipment will be permitted to travel off of established skid trails only to the extent reasonably necessary to harvest available timber based on the sale administrator’s judgment, and only when the top 6 inches of soil is sufficiently dry to minimize soil compaction problems. Criteria used integrate the combined influence of soil texture and soil moisture as described in USDA-NRCS 1998. See Keck (2012, project document # J-1) for details. Repeated passes over the same ground are to be minimized.	4	4	
10) Skid Trail Erosion Control - All skid trails will be constructed with water erosion control and drainage measures installed as required by standard timber sale provisions.	4	4	Very few segments >15%, these were “water barred” using slash
11) Skid Trail Ripping - Ripping of skid trails at the completion of timber harvesting will occur where detrimentally compacted mineral soil is exposed at the surface. Depth of ripping in these areas will be 6 to 8 inches. All areas disturbed by ripping will be broadcast seeded with an appropriate native seed mix.	4	4	
12) Temp Road Construction - Depth of blading in construction of temporary roads will be minimized to the extent reasonable within constraints of Forest Service standards for temporary road construction. Where possible, a berm of topsoil will be formed on the uphill edge of the road prism. This topsoil berm will be used to re-contouring the road prism	4	4	Blading was deemed unnecessary

at the conclusion of timber harvesting operations.			
<p>13) Temp Road Rehab - The road prism will be ripped to a depth of 8 to 10 inches. Windrowed topsoil, where available, will be spread back over the road prism after ripping. All areas disturbed by ripping will be broadcast seeded with an appropriate native seed mix.</p> <p>All decommissioned temporary roads will have approximately 15 tons per acre of down woody material scattered throughout. Where needed within treatment units, some additional leave trees may be dropped to ensure that sufficient material is available for slashing the road prism at the end of the project.</p>	4	4	Rehabilitation was very successful, especially considering they had been rehab'd less than one year previously
<p>14) Coarse Woody Debris- As defined by Forest Plan standard established in Amendment #15 of the Gallatin National Forest - Forest Plan (USFS-GNF 1993), an average of fifteen tons of coarse woody debris (CWD) per acre, where available, will be left scattered on the ground in all treatment units.</p>	4	4	None of the pre-existing LWD was removed, and post-harvest wind throw has added LWD to many units. Brown's protocol was used to determine an average of 10 tons/acre in fall 2017.
<p>15) Equipment Cleaning- Off road equipment will be washed prior to use in the project area.</p>	4	4	
<p>16) Landings with Burn Piles- Exposed areas of landings around burn piles will be ripped (scarified) to a depth of 8 to 10 inches areas. All areas disturbed by ripping will be broadcast seeded with an appropriate native seed mix.</p>	4	4	
<p>17) Weed Treatment - Existing weeds will be pretreated, with follow-up treatments as necessary. Trails and units will be monitored for new patches.</p>	4	4	Weed treatment was a stewardship item
<p>18) Native Seed Mix - Disturbed soil will be seeded with native seed (certified Noxious Weed-Free Seed). Recommended seed mixture will contain: 20 % Thickspike wheatgrass 20 % Mountain brome</p>	4	4	Logger-supplied seed mix contained cheatgrass, with is acceptable under current Region 1 grass seeding provision because it is not on the MT noxious seed list. This is a

20 % Idaho Fescue 20 % Alpine timothy 20 % Columbia needlegrass The recommended mixture can be modified if approved by the Forest Service. Seed will be applied at a rate of 20 pounds per acre. Seed will be broadcast in recently ripped soil, or hand raked into soil.			problem that needs to be resolved at the RO level. Application and effectiveness were scored “4” because the Forest substituted it’s own seed (cheatgrass-free) for use on this project.
19) Protection of Infrastructure - All existing development structures (signs, survey markers, buildings, gates) will be protected.	4	4	
20) Sensitive Plants - If a sensitive plant is discovered at any time during this project, the plant specialist will develop mitigation measures that protect the site.	4	4	None were found

PHOTOGRAPHS



Rehabilitated temporary road in Unit 14



Skid trail, slash pile, and blow down (at right) in Unit 14



Skid trail in Unit 6

ADDITIONAL ISSUES/OBSERVATIONS

1. Ski trail groomers objected to impacts (roughening) of the project on ski trail surfaces, which must be smooth to allow proper grooming.
2. In winter 2017 it was observed that in some areas the forested buffer between units and ski trails was not been adequate to prevent loose snow from the units drifting over groomed trails.

RECOMMENDATIONS

1. Future harvest operations in this area should be required to be complete by October 1 in order to avoid interfering with pre- and early-season preparation and maintenance of ski trails.
2. In the future make road/trail rehabilitation a stewardship item, which would allow prescription of the end result (condition) of roads and trails. This would ensure that post-project road/trail surface conditions will meet the specific standards for groomed ski trails.
3. Consider having soils/wildlife assess LWD availability in units prior to harvest so that availability is known and logging operations can adjust accordingly.
4. When pre-project LWD availability is low consider removing tree tops and leaving them on the unit in order to meet LWD targets.

Dale White
Forest Hydrologist